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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,855	02/24/2005	Katsumi Komagamine	YOKOP030	9587

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EXAMINER	
POPOVICI, DOV	

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/525,855	KOMAGAMINE ET AL.	
	Examiner	Art Unit	
	Dov Popovici	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 February 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/23/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 15-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 15-16 are claiming a program per se. Claims 15-16 are directed to non-statutory functional descriptive material. "Computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035. " " Since a computer program is merely a set of instructions capable of being executed by a computer, the computer program itself is not a process and USPTO personnel should treat a claim for a computer program, without the computer-readable medium needed to realize the computer

program's functionality, as nonstatutory functional descriptive material" (see Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7-12 and 14-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Hower, Jr. et al. (U.S. Patent # 5,467,434).

As to claim 1, Hower, Jr. et al. discloses a print control apparatus (see figure 2) which allows a printer (12-1 to 12-N) to perform printing in accordance with a print execution instruction (see figures 2 and 4-5) issued from an application program (see figures 1-2 and 4-5), wherein said apparatus accepts a user-specified formatted print when accepting said print execution instruction, dynamically configures a print condition needed for printing based on said specified formatted print according to capability of said printer, and performs printing (see figures 1-2 and 4-5 and see abstract and column 2, lines 32-50, and see column 3, line 67 to column 5, line 21).

As to claim 2, Hower, Jr. et al. discloses a print control apparatus (see figure 2) comprising: a printer capability data storage unit (printer profile 44-1 to 44-N) for storing printer capability data based on each printer model, wherein printer capability data indicates capability of said printer in terms of a print condition configurable on said printer; a formatted print data storage unit (42-1 to 42-N) for storing formatted print data indicative of a formatted print candidate provided as a formatted print option; a formatted print specification acceptance unit (37, 35 and 50) for referencing said printer capability data, extracting and providing a formatted print candidate selectable for a model of printer to perform printing out of said stored formatted print data, and accepting specified formatted print; a print condition setup unit (16 and 35 and 37) for referencing said printer capability data and configuring a combination of print conditions needed for said specified formatted print within a range of print conditions specifiable for said model of printer to perform printing; and print execution control unit (50 and 12-1 to 12-N) for allowing said printer to perform printing under said configured print condition (see figures 1-2 and 4-5 and see abstract and column 2, lines 32-50, and see column 3, line 67 to column 5, line 21).

As to claims 3 and 10, Hower, Jr. et al. discloses wherein said formatted print data includes not only a print condition to enable formatted print for each formatted print candidate, but also data indicative of a name for specifiable displaying each formatted print candidate when provided as an option for said formatted print (see figures 4-5 and 14A-C and column 4, lines 13-27).

As to claims 4 and 11, Hower, Jr. et al. discloses wherein said formatted print data stores a print condition required to perform said formatted print out of print conditions specifiable for a printer correspondingly to each formatted print candidate (see figures 1-2 and 4-5 and see abstract and column 2, lines 32-50, and see column 3, line 67 to column 5, line 21).

As to claims 5 and 12, Hower, Jr. et al. discloses wherein said printer capability data contains a prioritized condition (reads on rules and hierarchical order and decision tree) specifiable for each setup item; and wherein said print condition setup unit configures a highly prioritized condition for each setup item so as to perform printing according to said formatted print (see column 6, lines 20-47 and column 6, line 48 to col. 7, line 3 and column 8, line 54 to col. 9, line 35).

As to claims 7 and 14, Hower, Jr. et al. discloses wherein said printer capability data defines a print condition so that a condition for a given setup item depends on a condition for another setup item (reads on: rules and hierarchical order and decision tree, see column 6, lines 20-47 and column 6, line 48 to col. 7, line 3 and column 8, line 54 to col. 9, line 35).

As to claim 8, Hower, Jr. et al. discloses a print control method (see figure 2) of allowing a printer (12-1 to 12-N) to perform printing in accordance with a print execution instruction (see figures 2 and 4-5) issued from an application program (see figures 1-2 and 4-5), wherein said method accepts a user-specified formatted print when accepting said print execution instruction, dynamically

configures a print condition needed for printing based on said specified formatted print according to capability of said printer, and performs printing (see figures 1-2 and 4-5 and see abstract and column 2, lines 32-50, and see column 3, line 67 to column 5, line 21).

As to claim 9, Hower, Jr. et al. discloses a print control method (see figure 2) of allowing a printer (12-1 to 12-N) to perform printing in accordance with a print execution instruction issued from an application program (see figures 1-2 and 4-5), said method comprising: extracting and providing a formatted print candidate selectable for a model of printer to perform printing out of formatted print data and accepting specified formatted print, wherein formatted print data is stored in a specified storage medium (42-1 to 42-N) and indicates a formatted print candidate provided as a formatted print option; referencing printer capability data and configuring a combination of print conditions needed for said specified formatted print within a range of print conditions specifiable for said model of printer to perform printing, wherein printer capability data is stored in a specified storage (44-1 to 44-N) for each printer model and indicates a print condition specifiable for a printer; and allowing said printer (12-1 to 12-N) to perform printing under said configured print condition (see figures 1-2 and 4-5 and see abstract and column 2, lines 32-50, and see column 3, line 67 to column 5, line 21).

As to claim 15, Hower, Jr. et al. discloses a print control program for allowing a printer (12-1 to 12-N) to perform printing in accordance with a print

execution instruction issued from an application program (see figures 1-2 and 4-5), wherein said print control program allows a computer (15-1) to implement functions of accepting said print execution instruction entered through an input operation device (16), providing a formatted print candidate for a user to visually check on a specified display apparatus (see figure 1-2 and 4-5), accepting a user-specified formatted print entered through said input operation device (16), dynamically configuring a print condition needed for printing based on said specified formatted print according to capability of said printer, and performing printing (see figures 1-2 and 4-5 and see abstract and column 2, lines 32-50, and see column 3, line 67 to column 5, line 21).

As to claim 16, Hower, Jr. et al. discloses a medium recording the print control program (see figures 1-2).

As to claim 17, Hower, Jr. et al. discloses an image processing apparatus (see figures 1-2) having a display apparatus (see figure 1, 17 and see figure 2, 16) to display contents (see figures 4-5) and an input operation device (16) capable of selection operations (see figures 4-5) corresponding to displayed contents, said image processing apparatus (see figures 1-2) characterized by: being able to display a print menu (see figures 4-5) and accept a print instruction corresponding to a selection operation; accepting said print instruction and displaying (see figures 4-5) a formatted print candidate capable of being printed on a specified printer (12-1 to 12-N); accepting any specified formatted print corresponding to a selection operation associated with said displayed

candidate; generating a print condition for said printer corresponding to said specified formatted print; and generating print data for performing printing under a print condition (see figures 1-2 and 4-5 and see abstract and column 2, lines 32-50, and see column 3, line 67 to column 5, line 21).

As to claim 18, Hower, Jr. et al. discloses an image processing apparatus (see figures 1-2) having a display apparatus (see figure 1, 17 and see figure 2, 16) to display contents and an input operation device (16) capable of selection operations corresponding to displayed contents (see figures 4-5), said image processing apparatus (see figures 1-2) characterized by: determining whether or not there are available a plurality of printers (12-1 to 12-N) capable of printing and, when they are available, determining a printer (12) to be used based on print quality (reads on: selecting one printer when the job selections corresponds with printer properties available at selected printer see abstract and col. 2, lines 32-50); being able to display a print menu and accept a print instruction corresponding to a selection operation (see figure 4-5); accepting said print instruction and displaying a formatted print candidate capable of being printed on said determined printer (see figures 4-5); accepting any specified formatted print corresponding to a selection operation associated with said displayed candidate (see figures 4-5); generating a print condition for said printer (12) corresponding to said determined formatted print; and generating print data for performing printing under a print condition (see figures 1-2 and 4-5 and see abstract and column 2, lines 32-50, and see column 3, line 67 to column 5, line 21).

As to claim 19, Hower, Jr. et al. discloses characterized by storing printer capability data (44-1 to 44-N) indicating capability of a printer (12-1 to 12-N) capable of printing and displaying (see figures 4-5) said formatted print candidate capable of being printed on a specified printer (12) based on the same printer capability data (see figures 1-2 and 4-5 and see abstract and column 2, lines 32-50, and see column 3, line 67 to column 5, line 21).

As to claim 20, Hower, Jr. et al. discloses characterized by removing formatted print candidates incapable of printing on a specified printer from a plurality of candidates based on said printer capability data and displaying said formatted print candidates as those capable of printing after the removal (see col. 7, line 60 to col. 8, line 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6, 13 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hower, Jr. et al. (U.S. Patent # 5,467,434) in view of Sasaki (U.S. Patent # 5,228,118).

As to claims 6 and 13, Hower, Jr. et al. discloses wherein said printer capability data storage unit acquires said printer capability data.

Hower, Jr. et al. does not specifically specifies that wherein said printer capability data storage unit acquires said printer capability data by issuing an inquiry to a printer driver installed in a computer to control a printer.

Sasaki teaches a computer connected to plural printers, wherein the printer capability data storage unit acquires the printer capability data by issuing an inquiry to a printer and selecting a printer driver installed in a computer to control a printer (abstract, col. 2, line 56 to col. 4, line 41 and figures 1-2 and 6-8).

Therefore, it would have been obvious to one person having ordinary skill in the art at the time the invention was made to have modified Hower, Jr. et al. wherein said printer capability data storage unit acquires said printer capability data by issuing an inquiry to a printer driver installed in a computer to control a printer.

It would have been obvious to one person having ordinary skill in the art at the time the invention was made to have modified Hower, Jr. et al. by the teaching of Sasaki so that wherein said printer capability data storage unit acquires said printer capability data by issuing an inquiry to a printer driver installed in a computer to control a printer, because of the following reasons: (a) so that printer capabilities data can be acquired and the proper, appropriate and/or the correct printer driver can be selected automatically to control,

communicate and provide compatibility with the selected printer, so that the transmitted print data is properly transmitted via the proper selected printer driver and the printer can receive and successfully understand the transmitted print data language used by the printer driver, hence, therefore, improving system communications and compatibility between the computer(s) and the printer(s); and (b) eliminating non-compatibility between the computer(s) and printer(s) and eliminating possible printing error(s); and (c) eliminating the need for an operator to manually select the appropriate printer driver which is cumbersome and time consuming, as taught by Sasaki at col. 1, line 25 to col. 2, line 53, by receiving printer capability data (i.e. interpreter-identification data) in response to an inquiry signal asking the printer to send back to the computer interpreter-identification data and the computer automatically selects a compatible printer driver, as taught by Sasaki see abstract and col. 2, line 56 to col. 4, line 41 and figures 1-2 and 6-8).

As to claim 21, Hower, Jr. et al. discloses an image processing computer (see figures 1-2) which has an input operation device (16) and a display (17 and see figures 4-5) for displaying data and can perform a print instruction in accordance with operations of said input operation device (16) under control of an application program (see figures 1-2 and 4-5), said computer (15) comprising: a formatted print list creation module (see figures 1-2 and 4-5) to provide formatted print candidates when a print instruction is issued; a print condition setup module (16 and 35 and 37) to set a print condition for performing a specified formatted print; an available printer acquisition module (50) to acquire a

printer (12) for performing printing; wherein said formatted print list creation module (see figures 1-2 and 4-5) acquires a model of printer used for printing from said available printer acquisition module, references formatted print data indicating formatted print candidates provided as formatted print options, and creates a list of formatted print candidates selectable on said model of printer; wherein, when allowing said display (see figures 4-5) to display a created list and accepting an operation to specify said list from said input operation device (16), said print condition setup module (16, 35 and 37) references formatted print data for said specified formatted print and sets a print condition for performing said specified formatted print (see figures 1-2 and 4-5 and see abstract and column 2, lines 32-50, and see column 3, line 67 to column 5, line 21).

Hower, Jr. et al. does not specifically specifies a printer driver to output conditions of performing printing and print data, and wherein said printer driver configures a condition for a printer so as to perform printing according to a proper print condition based on said print condition and image data for an image corresponding to print execution specified by said application program and outputs print data.

Sasaki teaches a computer or plural computers connected to plural printers and a printer driver (see figures 1, 6 and 8) to output conditions of performing printing and print data, and wherein said printer driver configures a condition for a printer so as to perform printing according to a proper print condition based on said print condition and image data for an image

corresponding to print execution specified by an application program and outputs print data.

Therefore, it would have been obvious to one person having ordinary skill in the art at the time the invention was made to have modified Hower, Jr. et al. so that a printer driver can output conditions of performing printing and print data, and wherein said printer driver configures a condition for a printer so as to perform printing according to a proper print condition based on said print condition and image data for an image corresponding to print execution specified by said application program and outputs print data.

It would have been obvious to one person having ordinary skill in the art at the time the invention was made to have modified Hower, Jr. et al. by the teaching of Sasaki so that a printer driver can output conditions of performing printing and print data, and wherein said printer driver configures a condition for a printer so as to perform printing according to a proper print condition based on said print condition and image data for an image corresponding to print execution specified by an application program and outputs print data, because of the following reasons: (a) so that printer capabilities data can be acquired and the proper, appropriate and/or the correct printer driver can be selected automatically to control, communicate and provide compatibility with the selected printer, so that the transmitted print data is properly transmitted via the proper selected printer driver and the printer can receive and successfully understand the transmitted print data language used by the printer driver, hence, therefore,

improving system communications and compatibility between the computer(s) and the printer(s); and (b) eliminating non-compatibility between the computer(s) and printer(s) and eliminating possible printing error(s); and (c) eliminating the need for an operator to manually select the appropriate printer driver which is cumbersome and time consuming, as taught by Sasaki at col. 1, line 25 to col. 2, line 53, by receiving printer capability data (such as interpreter-identification data) in response to an inquiry signal asking the printer to send back to the computer interpreter-identification data and the computer automatically selects a compatible printer driver, as taught by Sasaki see abstract and col. 2, line 56 to col. 4, line 41 and figures 1-2 and 6-8); and (d) so as to output conditions of performing printing and print data, and the printer driver can configure a condition for a printer so as to perform printing according to a proper print condition based on the print condition and image data for an image corresponding to print execution specified by the application program and output the print data to the printer successfully.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dov Popovici whose telephone number is 571-272-4083. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on 571-272-7402. The fax

phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dov Popovici/

Primary Examiner, Art Unit 2625

Dov Popovici
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